

# ORDER FOR SUPPLIES OR SERVICES

PAGE OF PAGES

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5

IMPORTANT: Mark all packages and papers with contract and/or order numbers.

1. DATE OF ORDER 08/20/2020		2. CONTRACT NO. (If any) 68HERC20D0016		6. SHIP TO: a. NAME OF CONSIGNEE CAD	
3. ORDER NO. 68HERC20F0382		4. REQUISITION/REFERENCE NO. See Schedule			
5. ISSUING OFFICE (Address correspondence to) CAD US Environmental Protection Agency 26 West Martin Luther King Drive Mail Code: W136 Cincinnati OH 45268-0001				b. STREET ADDRESS US Environmental Protection Agency 26 West Martin Luther King Drive Mail Code: W136	
				c. CITY Cincinnati	e. ZIP CODE 45268-0001
7. TO: Andrew Parker				f. SHIP VIA	
a. NAME OF CONTRACTOR TETRA TECH, INC.				8. TYPE OF ORDER	
b. COMPANY NAME				<input type="checkbox"/> a. PURCHASE <input checked="" type="checkbox"/> b. DELIVERY REFERENCE YOUR: Please furnish the following on the terms and conditions specified on both sides of this order and on the attached sheet, if any, including delivery as indicated.	
c. STREET ADDRESS 10306 EATON PL STE 340				Except for billing instructions on the reverse, this delivery order is subject to instructions contained on this side only of this form and is issued subject to the terms and conditions of the above-numbered contract.	
d. CITY FAIRFAX		e. STATE VA	f. ZIP CODE 220302201		
9. ACCOUNTING AND APPROPRIATION DATA See Schedule				10. REQUISITIONING OFFICE OW	

11. BUSINESS CLASSIFICATION (Check appropriate box(es))				12. F.O.B. POINT	
<input type="checkbox"/> a. SMALL <input checked="" type="checkbox"/> b. OTHER THAN SMALL <input type="checkbox"/> c. DISADVANTAGED <input type="checkbox"/> d. WOMEN-OWNED <input type="checkbox"/> e. HUBZone <input type="checkbox"/> f. SERVICE-DISABLED VETERAN-OWNED <input type="checkbox"/> g. WOMEN-OWNED SMALL BUSINESS (WOSB) ELIGIBLE UNDER THE WOSB PROGRAM <input type="checkbox"/> h. EDWOSB					
13. PLACE OF		14. GOVERNMENT B/L NO.		15. DELIVER TO F.O.B. POINT ON OR BEFORE (Date) 08/25/2021	
a. INSPECTION Destination	b. ACCEPTANCE Destination			16. DISCOUNT TERMS	

## 17. SCHEDULE (See reverse for Rejections)

ITEM NO. (a)	SUPPLIES OR SERVICES (b)	QUANTITY ORDERED (c)	UNIT (d)	UNIT PRICE (e)	AMOUNT (f)	QUANTITY ACCEPTED (g)
	DUNS Number: 198549560 TOCOR: Tina Laidlaw Max Expire Date: 08/25/2021 Invoice Approver: Tina Laidlaw Alt Invoice App: Jason Gildea Continued ...					

SEE BILLING INSTRUCTIONS ON REVERSE	18. SHIPPING POINT		19. GROSS SHIPPING WEIGHT		20. INVOICE NO.		17(h) TOTAL (Cont. pages)
	21. MAIL INVOICE TO:						
	a. NAME RTP Finance Center						\$277,304.88
	b. STREET ADDRESS (or P.O. Box) US Environmental Protection Agency RTP-Finance Center (AA216-01) 109 TW Alexander Drive www2.epa.gov/financial/contracts						\$265,000.00
c. CITY Durham		d. STATE NC	e. ZIP CODE 27711				17(i) GRAND TOTAL

22. UNITED STATES OF AMERICA BY (Signature)

08/20/2020

ELECTRONIC SIGNATURE

23. NAME (Typed)  
Gerold D. Young  
TITLE: CONTRACTING/ORDERING OFFICER

## ORDER FOR SUPPLIES OR SERVICES

PAGE NO

## SCHEDULE - CONTINUATION

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IMPORTANT: Mark all packages and papers with contract and/or order numbers.

DATE OF ORDER		CONTRACT NO.		ORDER NO.		
08/20/2020		68HERC20D0016		68HERC20F0382		
ITEM NO.	SUPPLIES/SERVICES	QUANTITY ORDERED	UNIT	UNIT PRICE	AMOUNT	QUANTITY ACCEPTED
(a)	(b)	(c)	(d)	(e)	(f)	(g)
1001	<p>Admin Office: CAD US Environmental Protection Agency 26 West Martin Luther King Drive Mail Code: W136 Cincinnati OH 45268-0001 Period of Performance: 08/26/2020 to 08/25/2021</p> <p>Base Tasks in accordance with the attached PWS Fully Funded Obligation Amount: \$251,129.24 Requisition No: PR-R8-20-00453, PR-R8-20-00460</p> <p>Accounting Info: 20-21-B-28E-000BD4X20-2505-2028CES001-001 BFY: 20 EFY: 21 Fund: B Budget Org: 28E Program (PRC): 000BD4X20 Budget (BOC): 2505 DCN - Line ID: 2028CES001-001 Funding Flag: Partial Funded: \$0.00</p> <p>Accounting Info: 20-21-B-87FN-000BD4-2505-2087NE4005-001 BFY: 20 EFY: 21 Fund: B Budget Org: 87FN Program (PRC): 000BD4 Budget (BOC): 2505 DCN - Line ID: 2087NE4005-001 Funding Flag: Partial Funded: \$105,000.00</p> <p>Accounting Info: 20-21-B-87FT-000BD4-2505-2087NE4005-002 BFY: 20 EFY: 21 Fund: B Budget Org: 87FT Program (PRC): 000BD4 Budget (BOC): 2505 DCN - Line ID: 2087NE4005-002 Funding Flag: Partial Funded: \$110,000.00</p> <p>Accounting Info: 19-20-B-08WCO20-000BD4-2505-2008WWW804-001 BFY: 19 EFY: 20 Fund: B Budget Org: 08WCO20 Program (PRC): 000BD4 Budget (BOC): 2505 DCN - Line ID: 2008WWW804-001 Continued ...</p>				251,129.24	
TOTAL CARRIED FORWARD TO 1ST PAGE (ITEM 17(H))					\$251,129.24	

**ORDER FOR SUPPLIES OR SERVICES**  
**SCHEDULE - CONTINUATION**

PAGE NO  
3

IMPORTANT: Mark all packages and papers with contract and/or order numbers.

DATE OF ORDER 08/20/2020	CONTRACT NO. 68HERC20D0016	ORDER NO. 68HERC20F0382
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ITEM NO. (a)	SUPPLIES/SERVICES (b)	QUANTITY ORDERED (c)	UNIT (d)	UNIT PRICE (e)	AMOUNT (f)	QUANTITY ACCEPTED (g)
	Funding Flag: Partial Funded: \$36,129.24					
1002	Optional Task 6D in accordance with the attached PWS (Option Line Item) 04/01/2021				12,304.88	
1003	Optional Task 6E and 6F in accordance with the attached PWS Fully Funded Obligation Amount: \$14,599.91 Requisition No: PR-R8-20-00460  Accounting Info: 19-20-B-08WCO20-000BD4-2505-2008WWW804 -001 BFY: 19 EFY: 20 Fund: B Budget Org: 08WCO20 Program (PRC): 000BD4 Budget (BOC): 2505 DCN - Line ID: 2008WWW804-001 Funding Flag: Complete Funded: \$13,870.76  The total amount of award: \$278,034.03. The obligation for this award is shown in box 17(i).				13,870.76	

TOTAL CARRIED FORWARD TO 1ST PAGE (ITEM 17(H))

\$26,175.64

## **SECTION B - Supplies or Services/Prices**

### **B-1 Local Clauses EPA-B-32-103 LIMITATION OF GOVERNMENT'S OBLIGATION**

(a) Severable services may be incrementally funded. Non-severable services shall not be incrementally funded. Contract line items 1001 through 1003 is severable and may be incrementally funded. For this item, the sum of \$265,000 of the total price is presently available for payment and allotted to this contract.

(b) For items identified in paragraph (a) of this clause, the Contractor agrees to perform up to the point at which the total amount payable by the Government, including reimbursement in the event of termination of those items for the Government's convenience, approximates the total amount currently allotted for those items to the contract. The Contractor shall not continue work on those items beyond that point. Subject to the clause entitled "Termination for Convenience of the Government," the Government will not be obligated, under any circumstances, to reimburse the Contractor in excess of the amount payable by the Government in the event of the termination of applicable contract line items for convenience including costs, profit, and estimated termination costs for those line items.

(c) Notwithstanding the dates specified in the allotment schedule in paragraph (h) of this clause, the Contractor will notify the Contracting Officer, in writing, at least 10 days prior to the date when, in the Contractor's best judgment, the work will reach the point at which the total amount payable by the Government, including any cost for termination for convenience, will approximate 75 percent of the total amount currently allotted to the contract for performance of the applicable items. The notification will state (1) the estimated date when that point will be reached and (2) an estimate of additional funding, if any, needed to continue performance of the applicable line items up to the next scheduled date for the allotment of funds identified in paragraph (a) of this clause, or to a substitute date as determined by the Government pursuant to paragraph (d) of this clause. If, after such notification, additional funds are not allotted by the date identified in the Contractor's notification, or by an agreed substitute date, the Contracting Officer will terminate any item(s) for which additional funds have not been allotted, pursuant to the clause entitled "Termination for Convenience of the Government."

(d) The parties contemplate that, subject to the availability of appropriations, the Government may allot additional funds for continued performance of the contract line items identified in paragraph (a) of this clause and will determine the estimated period of contract performance which will be covered by the funds. If additional funds are allotted, the Contracting Officer will notify the Contractor in writing. The Contractor shall not resume performance of the contract line items identified in paragraph (a) until the written notice is received. The provisions of paragraphs (b) through (d) of this clause will apply in like manner to the additional allotted funds and to the new estimated period of contract performance. The contract will be modified accordingly.

(e) The Government may, at any time prior to termination, allot additional funds for the performance of the contract line items identified in paragraph (a) of this clause.

(f) The termination provisions of this clause do not limit the rights of the Government under the clause entitled "Default". The provisions of this clause are limited to the work and allotment of funds for the contract line items set forth in paragraph (a) of this clause. This clause no longer applies once the contract is fully funded.

(g) Nothing in this clause affects the right of the Government to otherwise terminate this contract pursuant to the contract clause entitled "Termination for Convenience of the Government".

(h) The parties contemplate that the Government may obligate funds to this contract in accordance with the following schedule:

RECAPITULATION:

**RECAPITULATION OF FUNDING TO DATE BY TASK ORDER PERIOD**  
**CONTRACT NO. 68HERC20D0016**  
**TASK ORDER NO. 68HERC20F0382**

**Period of Performance - FROM 8/26/2020 through 8/25/2021**

<b><u>FUNDING ACTION</u></b>	<b><u>FUNDING</u></b>
<b>Total Task Order Amount:</b>	\$ 278,034.03
<b>Total Task Order Incremental Funding</b>	\$ 265,000.00
<b>Total Task Order Unfunded Amount</b>	\$ 13,034.03
Total Base Period Amount:	\$ 251,129.24
Initial Incremental Funding	\$ 251,129.24
Balance Unfunded	\$ 0.00
Total Optional Task 6D Amount:	\$ 12,304.88
Initial Incremental Funding	\$ 0.00
Balance Unfunded	\$ 12,304.88
Total Optional Task 6E&6F	\$ 14,599.91
Initial Incremental Funding	\$ 13,870.76
Balance Unfunded	\$ 729.15

**SECTION F - Deliveries or Performance**

F-1 Local Clauses EPA-F-12-101 PERIOD OF PERFORMANCE

The period of performance of this Task Order shall be from 8/26/2020 through 8/25/2021 inclusive of all required reports.

**SECTION G - Contract Administration Data**

G-1 Local Clauses EPA-G-42-101 CONTRACT ADMINISTRATION REPRESENTATIVES

Task Order-Level Contracting Officers Representatives (CORs)/Project Officers for this contract are as follows:

Tina Laidlaw, 406-457-5016, [laidlaw.tina@epa.gov](mailto:laidlaw.tina@epa.gov) (TOCOR)

Jason Gildea, 406-457-5028, [gildea.jason@epa.gov](mailto:gildea.jason@epa.gov) (Alternate TOCOR)

Contracting Officials responsible for administering this contract are as follows:

Gerold Young, 513-487-2660, [Young.Gerold@epa.gov](mailto:Young.Gerold@epa.gov) (Contracting Officer)

Matthew Huber, 513-569-7195, [huber.matthew@epa.gov](mailto:huber.matthew@epa.gov) (Contract Specialist)

Delivery-Invoice Payment Schedule shall not exceed a frequency greater than once a month and 90% of the task order price. Acceptance for invoicing is based on deliverable approval by the TOCOR. For efficient processing IAW FAR clause 52.232-32, performance based payment invoicing amounts will not be submitted until the TOCOR provides deliverable approval. The TOCOR will notify Tetra Tech within 14 days of submission of a deliverable of EPAs intention to approve or disapprove.

## **Performance Work Statement**

Contract: 68HERC20D0016

Task Order #: 68HERC20F0382

Contractor: Tetra Tech, Inc.

Task Order Title: Support for EPA Region 8 Watershed Program

EPA Contract Level COR: Tanyan Bailey (202-564-3133)  
Bailey.Tanyan@epa.gov

EPA Task Order COR: Tina Laidlaw  
Laidlaw.tina@epa.gov

EPA Alternate Task Order COR: Jason Gildea (406-457-5028)  
Gildea.Jason@epa.gov

Period of Performance: Award through 12 months

### **A. PROBLEM STATEMENT AND TASK ORDER (TO) DESCRIPTION**

The purpose of this Task Order is to provide support to EPA Region 8's Watershed Section to meet Clean Water Act (CWA) goals. Specific tasks include assisting EPA, Montana, and Wyoming in developing assessment methods, surface water quality modeling for the Tongue River watershed, and developing watershed plans for Wyoming.

### **B. TASKS**

The following tasks have been identified to support the above goals. It is expected that the contractor will work closely with the EPA TOCOR and to complete these tasks.

#### **Task 1 – Quality Assurance**

All tasks where the Scope of Work includes collection of or use of environmental data, design or construction of technologies, develops or uses models, or may require quality assurance or control will require a Quality Assurance Project Plan (QAPP). Following the notice to proceed, the Contractor shall prepare a project-specific QAPP following G5 and R5 (<http://www.epa.gov/quality/qs-docs/g5-final.pdf>, <http://www.epa.gov/region8/qa/QAEPAr5-final.pdf>).

The Contractor shall submit the completed Region 8 QA Crosswalk with the QAPP. The form may be found at EPA Region 8's QA website: <http://www.epa.gov/region8/qa/reference.html>.

The QAPP must be approved prior to the initiation of work under this Task Order. The Contractor shall review and update the QAPP as needed to follow project objectives and/or as required by changes in the Task Order SOW using the Region 8 QA Crosswalk

Deliverables: A single QAPP addressing the proposed activities.

## Task 2 – Scoping Conference Call

The Contractor shall schedule a scoping meeting with the EPA Task Order COR within 15 business days following receipt of this PWS to discuss the overall objective of the PWS and specific task elements.

Deliverables: Meeting minutes from the scoping conference call.

## Task 3 – Progress Reports

The contractor shall prepare Monthly Progress Reports containing a description of the work performed that month, specific difficulties encountered, hours expended and percentage of each task completed with accompanying invoices based on work performed; electronic copies, with bookmarks, to the COR and CO.

Deliverables: Monthly progress reports for the life of the project.

## Task 4 – Support for Development of Assessment Methods for Montana

40 CFR § 130.7(b)(5) requires that “Each State shall assemble and evaluate all existing and readily available water quality-related data and information to develop [a state’s Clean Water Act (CWA) Section 303(d)] list.” Additionally, 40 CFR § 130.7(b)(6) requires that “Each State shall provide documentation to the Regional Administrator to support the State’s determination to list or not to list its waters.... This documentation shall be submitted to the Regional Administrator together with the [CWA Section 303(d) list] and shall include at a minimum:

(iii) A rationale for any decision to not use any existing and readily available data and information.

EPA’s Integrated Reporting Guidance (IRG), issued to assist states with CWA Section 303(d) listing, describes that states “assemble” data sufficient to meet the regulatory requirements when, through solicitation and other means, they gather all existing and readily available water quality-related data and information.<sup>1</sup> States “evaluate” data when they consider whether and how the data should be used to make a WQS attainment status determination, applying reasonable and scientifically sound data evaluation procedures.<sup>2</sup> After a state assembles and evaluates data, it can choose not to “use” that data to develop the list if it provides a “rationale.”<sup>3</sup>

In its review of Montana’s 2018 draft IR assessments, EPA Region 8 staff learned that Montana Department of Environmental Quality’s (MDEQ) monitoring and assessment program does not assemble or evaluate all existing and readily available data and information as required by EPA’s regulation. Instead, MDEQ assembles and evaluates available data and information only for those parameters for which the waterbody was listed as impaired or have been identified as parameters of interest by outside

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<sup>1</sup> EPA Guidance for 2006 Assessment, Listing and Reporting Requirements Pursuant to Sections 303(d), 305(b) and 314 of the Clean Water Act. Page 30-32.

<sup>2</sup> *Id.* Pages 32-37.

<sup>3</sup> *Id.*

stakeholders. For example, the state regularly downloads data from the WQX portal (Cloud-based data server that includes data collected by MDEQ, USGS, and other stakeholders for a specific waterbody). The state will download nutrient data if the waterbody has been listed as impaired for nutrients; however, they will not assemble or evaluate data for other parameters that may have been collected at the same time (e.g., pH, dissolved oxygen, metals, etc.). In some cases, the state may download the data but not evaluate it because MDEQ doesn't have a documented assessment method developed for the parameter (i.e., temperature, lake data).

Additionally, MDEQ has avoided assembling and evaluating data for any parameter for which the state does not have a documented assessment methodology. Currently, MDEQ does not assemble and evaluate data because it lacks assessment methods for the at least the following parameters: dissolved oxygen, pH, temperature, turbidity, biological data. The result is that data for these parameters collected by MDEQ are not regularly assembled or evaluated in MDEQ's assessment process.

#### Task 4A – Assemble Relevant Assessment Methods

The Contractor shall review MT's existing criteria and any applicable EPA criteria guidance documents for the following parameters: dissolved oxygen (grab and continuous data for both streams/ rivers and lakes/ reservoirs), pH (grab and continuous data), turbidity, toxics and carcinogens (e.g., metals, PCBs, pesticides/ herbicides), and eutrophication/ nutrients/ chlorophyll-a for lakes/ reservoirs. EPA will provide access to the Contractor to a database that contains all recently compiled state assessment methodologies. Building from language in Montana's water quality standards, the Contractor shall assemble existing state example assessment methods for the specified parameters for both rivers/ streams and lakes/ reservoirs.

The Contractor shall prepare a table that summarizes the different approaches taken by each state for each parameter, flagging specific page numbers where content is located with and web links to the state methodology. The summary table will highlight the strengths/ weaknesses with each methodology, especially compared to Montana's water quality standards.

Deliverables: Table summarizing the relevant state assessment methodologies, including a weblink to the detailed documentation, and overview of the strengths/ weaknesses of the method.

#### Task 4B – Identify recommended methodologies for MDEQ to consider

The Contractor shall discuss the compiled methodologies with MDEQ staff. Based on this discussion, the Contractor will identify a subset of methodologies to examine more closely as possible foundations for MDEQ to use as templates or to build upon. For dissolved oxygen and pH, the recommended methods should describe how to consider both grab and continuous datasets in assessments. The Contractor shall identify recommendations and considerations for MDEQ in developing a methodology for the state.

Deliverables: Memo highlighting a subset of assessment methods for Montana's consideration and summarizing recommendations and considerations for Montana in development of the state's methodology.

#### Task 4C – Assistance with Improving Data Downloads

After completing tasks 4A and 4B, the Contractor shall assist MDEQ with evaluating options for improving the state's process for downloading data from the WQX portal.

Deliverables: The Contractor will provide a memo that documents the options for downloading data from the WQX portal and describes the option selected and work completed.

### Task 5 – Tongue River SWATsalt Model Completion

The Tongue River Watershed encompasses approximately 5,400 square miles draining a landmass from the Big Horn Mountains of northcentral WY to the confluence with the Yellowstone River in southeastern MT. Major land uses consist of grassland, rangeland, agriculture, and resource extraction. Agricultural practices rely on irrigation, supported by a storage (Tongue River Reservoir) and canal system, due to the semi-arid climate.

EPA, with the support of Tetra Tech, developed a LSPC and CE-QUAL-W2 watershed model in the mid-2000s to study the watershed when rapid coal bed methane (CBM) development was taking place. Using some of this information, MDEQ identified the lower Tongue River as impaired in 2008 noting that salinity is preventing agricultural uses from being fully supported:

[http://deq.mt.gov/Portals/112/Water/WQPB/CWAIC/Reports/IRs/2018/Appendix\\_B.pdf](http://deq.mt.gov/Portals/112/Water/WQPB/CWAIC/Reports/IRs/2018/Appendix_B.pdf). The river remains impaired on the state's 303(d) list.

In 2016, MDEQ initiated the TMDL process by developing a different model, SWATsalt, known to excel at simulating land management activities and agricultural impacts. SWATsalt is based on the SWAT model and was developed for MDEQ under contract by the developers of SWAT. SWATsalt adds the ability to simulate up to 10 salt cations in the SWAT program. The watershed below the reservoir was selected as the modeling focus area and MDEQ treated the upstream contributions from the reservoir and three tributary basins as point source input files into the model (see [SWATsalt Modeling Project Focus Area Map](#)). The model run period was from 1998 to 2013, but the model was analyzed from 2004 to 2013, allowing the first few years of the run period to be used as an initial warm-up.

To date, MDEQ has developed a calibrated SWATsalt model, partially completed model scenario runs and partially developed a draft modeling report. Work has halted due to MDEQ staffing loss.

The goal for this task is to complete the Tongue River SWATsalt model so that modeled scenarios can inform TMDL allocations and MDEQ's TMDL development can proceed. To accomplish this goal the Contractor shall:

- Conduct an overall evaluation of the existing SWATsalt model for the purposes of identifying and correcting errors.
- Run 2-5 additional modeling scenarios to determine where required loading reductions may be achieved.
- Finalize a modeling report that explains the modeling process and summarizes the modeling results.

#### Task 5A – Evaluate Existing SWATsalt Model

The Contractor shall review all documentation (e.g., draft modeling report), files, calibration, scenario setups and results related to MDEQ's existing SWATsalt model, with a focus on evaluation

of the model for purposes of flagging and correcting minor errors similar to an informal peer review, as well as gaining an understanding of the model in order to run additional scenarios or correct existing scenarios as described below in Task 5b. It may be necessary to re-calibrate the corrected model. The established modeling domain (see map linked above) will not be expanded.

Deliverables:

1. Provide a brief draft report (MS Word) of any errors or gaps (if found) during the evaluation of the model and prepare a list of options for resolving the issue(s)
2. Implement corrections to the model as agreed to by EPA/MDEQ and provide a corrected and calibrated SWATsalt model with all associated input and output files
3. Provide a brief final report (MS Word) documenting any errors and actions taken to correct them

Task 5B – Run Additional SWATsalt Model Scenarios

A cursory review of the existing SWATsalt project files performed by MDEQ has been unable to find all input files originally used to model CBM sources. If the Contractor is unable to identify these files and validate results of CBM during the calibration period as performed under Task 5a, the Contractor may be asked to revise and rerun three CBM scenarios: remove all CBM wells, change the discharge location of CBM product water to discharge directly into the nearest perennial surface water (i.e., no on-stream or off-stream retention ponds), and treat all CBM product water to meet the MDEQ water quality standard of 1,000 uS/cm EC at existing discharge locations.

Additionally, the Contractor shall run a scenario where the extent of irrigated agriculture is increased on the Northern Cheyenne Reservation to represent the Tribe's potential to utilize water rights currently stored in the reservoir. Some relevant information, such as the acreage suitable for irrigation, has already been assembled by MDEQ.

The final scenario the Contractor shall run is an increased reservoir release scenario. MDEQ has determined that releasing pulses of stored water at certain times of the year may help decrease salinity concentrations of the lower Tongue River.

To summarize, the Contractor shall run two to five modeling scenarios depending on whether the CBM scenarios previously run by MDEQ are reproduceable and valid:

- 1) CBM – Remove all CBM wells *[if necessary]*
- 2) CBM – Discharge all CBM product water directly to surface water with no change to existing concentrations or treatment *[if necessary]*
- 3) CBM – Discharge all CBM product water at concentrations meeting water quality standards with no change to existing discharge locations *[if necessary]*
- 4) Agriculture – Increase extent of irrigated agriculture on Northern Cheyenne Reservation
- 5) Reservoir Release – Release pulses of water from the reservoir during critical periods

Deliverables:

1. Implement the 2-5 modeling scenarios as agreed to by EPA/MDEQ and provide all associated SWATsalt model input and output files

#### Task 5C – Finalize Modeling Report

The Contractor shall finalize the partially completed modeling report to explain the process for selecting, setting up, and calibrating the SWATsalt model including a discussion of key input data, modeling assumptions and results of model scenario runs. The final report shall address all comments and incorporate all edits made by EPA/MDEQ on the draft report.

#### Deliverables:

1. Provide modeling report (MS Word) including one draft version for review

### **Task 6 – Fish Creek Nutrient Assessment (Funded with Region 8 EPM funding)**

Fish Creek, a tributary to the Snake River, is located in Teton County in western Wyoming near the Town of Wilson. As identified in Wyoming's Surface Water Quality Standards, all surface waters in the Fish Creek watershed are Class 1, Outstanding Waters. With the Class 1 designation, the water quality and physical and biological integrity which existed on the water at the time of designation is to be maintained and protected and no degradation by point source discharges other than dams allowed. As outlined in the Wyoming Surface Water Classification List, for Water Quality Assessment purposes, the actual uses of Class 1 waters are determined independently.

Over the last several decades, the Fish Creek watershed has experienced rapid residential and commercial land development. Some local residents and other watershed stakeholders are concerned that these land-use changes have resulted in a deterioration of the stream's water quality and biological condition. In particular, some stakeholders believe inputs of excess nutrients (nitrogen and phosphorus) to Fish Creek are responsible for nuisance growths of aquatic plants and algae that have become more pronounced and prevalent in recent years.

Wyoming DEQ has neither numeric nutrient criteria nor an explicit assessment method for interpreting the relevant narrative criteria. The purposes of this project are to assist WDEQ with completing a use support determination for Fish Creek and to use Fish Creek and this exercise as a case study to assist WDEQ with developing an assessment method for nutrients in wadeable streams in Wyoming<sup>4</sup>. The project will be implemented in close coordination with WDEQ in four phases as described below.

### **Phase I – Data Compilation and Summary**

#### **Task 6A – Summary of State Narrative Nutrient Criteria and Consolidated Listing and Assessment Methods for Wadeable Streams**

The Contractor will become familiar with Wyoming's water quality standards related to nutrients (including applicable narratives as well as numeric criteria such as dissolved oxygen and pH that may represent a response to nutrients).

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<sup>4</sup> This effort will not address the antidegradation protections afforded Class 1 waters.

Additionally, the Contractor will provide a summary of other states' existing narrative nutrient criteria and how they are interpreted for assessment/listing, permitting, and Total Maximum Daily Loads (TMDLs) in wadeable streams with a focus on states with characteristics similar to Wyoming. It will include, but not be limited to: indicators, approaches to deriving thresholds, durations, and frequencies; specific water quality parameters and associated quantitative thresholds, durations, and frequencies; the locations, durations, and frequencies of sampling; and sampling and analytical methods.

Deliverable: Memo summarizing other states' methods for interpreting narrative nutrient criteria for wadeable streams highlighting approaches to deriving thresholds, durations, and frequencies; specific water quality parameters and associated quantitative thresholds, durations, and frequencies; locations, durations, and frequencies of sampling; and sampling and analytical methods. A draft of the memo will be shared with the Wyoming Department of Environmental Quality (WDEQ) for feedback. DEQ feedback will be incorporated prior to finalizing the draft.

#### Task 6B – Summarize Available Data, Information, and Reports

Fish Creek has been the topic of considerable study over the last several decades. It will be important for the contractor to become familiar with both the available hydrologic and water quality data.

Relevant data, information, and reports that have been compiled by WDEQ include:

- Historic data and other information contained in the Teton County Westbank Groundwater Study (Nelson Engineering 1992)
- Historic data collected in 1995 by WDEQ at four Fish Creek study sites
- Historic data collected between 1995 and 2008 by Teton Conservation District (TCD) at seven Fish Creek study sites
- Historic data and other information presented in five USGS reports that summarize the hydrologic, water quality and biological characteristics of Fish Creek for the period from 2004 to 2011 (Wheeler et al. 2005, Eddy-Miller et al. 2009, 2010 and 2013)
- Hydrologic data collected at USGS stream gage 13016450 (Fish Creek at Wilson, WY) between 1994 and the present
- Historic Geographic Information System (GIS) data from the Teton County Vegetation and Non-Vegetation Cover Type Final Report (Cogan and Johnson 2013)
- Data and other information obtained from WDEQ's Underground Injection Control (UIC) Program
- Data and other information in a USGS report that provides estimates of nutrient inputs and identifies nutrient sources (Eddy-Miller et al. 2016)
- Fisheries survey data collected by the Wyoming Game and Fish Department (WGFD)
- Chemical, physical and biological data collected collaboratively by WDEQ, TCD, and Alder Environmental in 2016 and 2017.

DEQ will make these data available to the contractor. The contractor will compile the available chemical, physical, and biological data into a single database (MS Excel or Access) to facilitate efficient, future data analysis. Summary tables will be prepared including the following fields: collecting entity/agency, site ID, site name, site coordinates, parameter, number of samples, period of record, and

comments. Maps showing the location of all sample sites will also be prepared. An annotated bibliography, briefly summarizing the reports, will also be prepared.

Based on previous WDEQ reviews of the available data, there may be QA/QC concerns with some data. Upon the contractor's completion of the summary tables, WDEQ will add a field to the tables to identify those concerns. A web-conference will then be held between WDEQ and the contractor to discuss the QA/QC issues and reach a conclusion regarding the utility of the various data sets for future use.

Deliverables:

1. Database of all chemical, physical, and biological data
2. Summary tables for all chemical, physical, and biological data
3. Site maps showing the location of all sample sites
4. Annotated bibliography of available reports
5. QA/QC web conference

Task 6C – Data Gaps Analysis

The purpose of this task is for the contractor to provide a professional opinion regarding whether or not: 1) sufficient data are available to determine whether nutrients are causing an exceedance of Wyoming's narrative criteria, and 2) sufficient data are available to determine use support. The contractor's recommendation should be based on their understanding of Wyoming's water quality standards as well as consideration of nutrient assessment methods developed for other states that may be suitable for application in Wyoming, or more broadly in wadeable streams throughout the state.

Deliverables: A web conference between WDEQ and the contractor will be schedule during which time the contractor shall provide an opinion regarding the suitability of the available data. WDEQ will then decide how to proceed with Phase II during this conference.

## Phase II – Data Adequacy and Next Steps

Phase II has been separated into two alternative tasks depending upon the results of Phase I. If it is concluded that insufficient data are available, the contractor shall complete Optional Task 6D. If it is concluded that sufficient data are available to proceed, the contractor shall complete Tasks 6E and 6F.

Optional Task 6D – Recommended Study Design for Supplemental Data Collection

If it is concluded that insufficient data are available, the contractor shall develop a study design for supplemental data collection including clearly stating the study questions, and identification of data quality objectives, proposed sample sites (and/or siting criteria), parameters, sample collection methods, sample frequency/timing, and minimum sample size.

Deliverables: The deliverable for this task is a study design for future supplemental data collection.

Optional Task 6E – Recommended Data Analysis Plan

If, alternatively, it is concluded that sufficient data are available to proceed, the contractor shall prepare a data analysis plan outlining: proposed indicators (e.g., nitrogen, phosphorus, chlorophyll a, DO, etc.); a

proposed approach for deriving thresholds for the indicators, and; a proposed approach to conduct the necessary data analyses to determine if nutrients are a cause of impairment and if the aquatic life other than fish designated use is impaired in Fish Creek.

Deliverables: The deliverable for this task is a draft and final data analysis plan.

#### Optional Task 6F – Data Analysis

In Task 6F the contractor shall implement the data analysis plan prepared in Task 6E.

Deliverables: Similar to the “results” chapter in a peer reviewed scientific paper, the contractor shall present the results of the data analysis (in a stand-alone memorandum) including tables, charts, graphs, and a narrative that objectively presents the results. Draft and final products will be provided.

#### Task 6G – Recommendations for Development of a Nutrient Assessment Method for Wadeable Streams in Wyoming

The contractor shall provide a recommended approach for developing a nutrient assessment method for wadeable streams in Wyoming (either statewide or regional as appropriate) using their understanding of Wyoming’s water quality standards and assessment methods developed by other states gained through the completion of Task 6A and their familiarity with western Wyoming issues gained through completion of Tasks 6B through 6D.

The contractor shall compare and contrast methods developed in other states with the unique challenges and issues that exist in Wyoming and will recommend a suite of indicators and a method for determining thresholds that represent interpretation of Wyoming’s narratives applicable to nutrients in wadeable streams.

Deliverables: A memo providing recommendations for development of a nutrient assessment method for nutrients in wadeable streams in Wyoming.

### Task 7 – Wyoming Watershed Plans

Wyoming DEQ’s CWA section 303(d) program Vision lists several surface water quality impairments that need to be addressed by 2022. The purpose of this Task is to help Wyoming DEQ address and complete watershed plans (e.g., TMDLs, TMDL Alternatives, or listing assessments) for up to five watersheds by 2022 including:

- Wheatland/Rock Creek Pathogens
- Laramie River Pathogens
- Crow Creek Sediment
- Tongue River Pathogens
- Little Medicine Bow Sediment TMDLs

Upon award of this Task Order, the contractor shall work with EPA and Wyoming DEQ to identify what work needs to be done for each watershed, noting that some watersheds have previous work that has been completed and some watersheds cannot be addressed until data collection efforts from summer

2020 are completed. Contractor, EPA, and DEQ will then prioritize work that needs to be completed for the five watersheds and set schedules for each watershed. Work that might need to be completed for each watershed includes:

- Review state, county, and other water quality documents for the watershed
- Compile and analyze available water quality data
- Create graphs and load duration curves
- Create GIS maps
- Conduct and write source assessments
- Write portions of the watershed document
- Assign total maximum daily loads, wasteload allocations, and load allocations
- Compile and respond to public comments
- Present information to federal and state agencies

Deliverables: Completed watershed plans for up to five watersheds in Wyoming within twelve months after award.

## C. SCHEDULE OF BENCHMARKS & DELIVERABLES:

Task #	BENCHMARK, DELIVERABLE or MILESTONE	SCHEDULE
1.0	Quality statement	Within 30 days of TO award.
2.0	Kick-off meeting	Within ten days of TO award.
3.0	Progress reports	Monthly for life of the TO
4.0	<u>Support for Development of Assessment Methods for Montana</u>	
4A	Assemble Relevant Assessment Methods	30 days after QAPP approval
4B	Identify recommended methodologies for MDEQ to consider	60 days after QAPP approval
4C	Assistance with Improving Data Downloads	To Be Determined
5A	<u>Evaluate Existing SWATsalt Model</u>	
	Draft error report with resolution options	10 weeks after receiving the model for evaluation
	All input and output files associated with a corrected/calibrated SWATsalt model	May 31, 2021
	Final error report with correction actions noted	5 weeks after receiving comments on the draft error report
5B	<u>Run Additional SWATsalt Model Scenarios</u>	
	All input and output files associated with 2-5 new or rerun SWATsalt model scenarios	May 31, 2021
5C	<u>Finalize Modeling Report</u>	
	Draft modeling report	March 31, 2021
	Final modeling report	May 31, 2021

6A	<u>Fish Creek Nutrient Assessment</u>	
	Memo summarizing state methods for interpreting narrative criteria.	30 days after QAPP Development
6B	Database of all chemical, physical, and biological data  Memo including a summary tables for all chemical, physical, and biological data along with site maps showing the location of all sample sites; and an annotated bibliography of available reports.	90 days after QAPP development
6C	Web conference to discuss Data Gaps Analysis	90 days after QAPP development
6D	Either Task 6D or 6E will be completed.  Study design for future supplemental data collection.	120 days after QAPP development
6E	Either Task 6D or 6E will be completed.  Draft or a final data analysis plan.	120 days after QAPP development
6F	Draft report including the results of the data analysis (in a stand-alone memorandum) including tables, charts, graphs, and a narrative that objectively presents the results	If completed, deadline of December 1, 2020.
6G	Memo documenting recommendations for development of a Nutrient Assessment Method for Wadeable Streams in Wyoming	Pending available funding, January 30, 2021
7	Complete Wyoming watershed plans	January 31, 2021

## **D. REPORTING**

The Contractor shall participate in status phone calls with the TOCOR on an as-needed basis. The TOCOR shall provide the Contractor with a one-week notice of any scheduled status calls. All documentation and reporting under this TO shall be in compliance with contract requirements.

The Contractor shall prepare and furnish each month to the TOCOR a written summary of work performed, and progress towards the schedule of benchmarks, deliverables and milestones which has been accomplished each month. The Contractor shall also include in this item a brief written summary of any challenges encountered in the appropriate month.

In addition, the Contractor shall identify and briefly describe in the written monthly report those QA / QC activities which were performed to support implementation of this TO, and furnish a brief written description of: problems encountered, and any deviations were occurred from: the Quality Management Plan, any Standard Operating Procedures, checklists, or other Quality Assurance guidance, as well as a description of the corrective actions taken.

## **E. CONTRACTOR IDENTIFICATION**

Contractor personnel shall always identify themselves as Contractor employees by name and organization and physically display that information through an identification badge. Contractor personnel are prohibited from acting as the Agency's official representative.

The Contractor shall refer any questions relating to the interpretation of EPA policy, guidance, or regulation to the TOCOR.

## **F. CONFERENCE/MEETING GUIDELINES AND LIMITATIONS**

The Contractor shall immediately notify the EPA Contracting Officer and TOCOR of any anticipated event involving support for a meeting, conference, workshop, symposium, retreat, seminar or training that may potentially incur \$20,000 or more in cost during performance. Conference expenses are all direct and indirect costs paid by the government and include any associated authorized travel and per diem expenses, room charges for official business, audiovisual use, light refreshments, registration fees, ground transportation and other expenses as defined by the Federal Travel Regulations. All outlays for conference preparation should be included, but the federal employee time for conference preparation should not be included. After notifying EPA of the potential to reach this threshold, the Contractor shall not proceed with the task(s) until authorized to do so by the Contracting Officer.

## **G. QUALITY ASSURANCE SURVEILLANCE PLAN**

See Appendix A for details.

## H. NOTIFICATION OF COMPLETION OF TASK ORDER DELIVERABLES

In the event this task order reaches thirty (30) days prior to the end of the Period of Performance in a given period, and the Contractor assesses that the Contractor will not be able to satisfactorily complete any of the benchmarks, milestones, or deliverables by the end of the Performance Period, the Contractor shall notify the TOCOR and the Contracting Officer (CO) immediately, in writing. Within five (5) business days of said notification, the TOCOR, in coordination with the CO, will provide technical direction concerning use of the remaining funding to prepare and furnish to the TOCOR: draft deliverables, interim work products, and any necessary working files in an electronic format which is supported by EPA.

# ATTACHMENT 1

## QUALITY ASSURANCE SURVEILLANCE PLAN

### “Support for EPA Region 8 Watershed Program”

**Purpose:** The requirements performed under this contract are considered performance-based, focusing on the Agency’s desired results and outcomes. The contractor shall be responsible for determining the most effective means by which these requirements will be fulfilled. In order to fulfill the requirements, the contractor shall design innovative processes and systems that can deliver the required services in a manner that will best meet the Agency’s performance objectives. This performance-based requirement represents a challenge to the contractor to develop and apply innovative and efficient approaches for achieving results and meeting or exceeding the performance objectives, measures, and standards described below. The Contractor’s performance will be reflected in the positive or negative evaluation offered by the Agency in the Contractor Performance Evaluation (CPE) which is evaluated annually (per the “Contractor Performance Evaluation” clause in the contract). The TOCOR shall submit a complete annual review of the areas outlined in the Quality Assurance Surveillance Plan (QASP), included in the contract, which will then be utilized by the Contract Level Contracting Officer’s Representative (CL-COR) in preparing the overall evaluations submitted annually in response to the CPE requirements in the contract. The TOCOR for each individual task order will provide the review of the deliverables at the location specified in the identified task order.

General Management and Administration			
Performance Requirement	Measurable Performance Standards	Surveillance Methods	Incentives/Disincentives
<b>Management and Communications:</b> The Contractor shall maintain contact with the EPA Contracting Officer (CO), Contracting Officer’s Representative (COR), and Task Order COR (TOCOR) throughout performance of the contract and shall immediately bring potential problems to the attention of the appropriate EPA TOCOR. In cases where issues have a direct impact on project schedules and/or cost, the Contractor shall provide options for EPA’s consideration on resolving or mitigating the impacts.	Any issues that impact project schedules and/or cost shall be brought to the attention of the appropriate EPA TOCOR within 3 business days of occurrence.	100% of active task orders under the contract will be reviewed by the EPA TOCOR monthly (via Monthly Progress Report) to identify unreported issues. The EPA TOCOR will report any issues to the EPA COR, who will bring the issue(s) to the Contractor’s attention through the EPA CO.	<b>Unsatisfactory</b> rating under the category of Business Relations in the Contractors Performance Appraisal Review System (CPARS) if two or more incidents occur during an applicable period of performance when the Contractor does not meet the measurable performance standards.  Fewer than two incidents per contract period where the contractor does not meet the measurable performance standard will be considered satisfactory performance and will be reported as such in the CPARS Performance Evaluation System under the category of Business Relations.
<b>Timeliness:</b> Services and deliverables shall be in accordance with schedules	During any period of performance, 90% of all submitted	100% of active task orders under the contract will be	<b>Unsatisfactory</b> rating under the category of Timeliness in the CPARS

stated in each task orders, unless amended or modified by an approved EPA action.	deliverables shall be submitted no later than one business day past the due date.	reviewed by the EPA TOCOR monthly (via Monthly Progress Report & milestones established for each deliverable) to compare actual delivery dates against the approved delivery dates. The EPA TOCOR will report any issues to the EPA COR, who will bring the issue(s) to the Contractor's attention through the EPA CO.	<p>when the Contractor does not meet the measurable performance standards during an applicable period of performance.</p> <p>A satisfactory rating will be reported in the CPARS Performance Evaluation System under the category of <b>Timeliness</b> if the contractor meets the measurable performance standards.</p>
<p><b>Cost Management and Control:</b> The Contractor shall monitor, track and accurately report level-of-effort, labor cost, and other direct cost to EPA through progress reports and approved special reporting requirements.</p> <p>The Contractor shall assign appropriately leveled and skilled personnel to all tasks, practice and encourage time management, and ensure accurate and appropriate timekeeping.</p>	The Contractor shall manage costs to the level of the approved ceiling on the task orders. The Contractor shall notify the EPA TOCOR/COR when 75% of the approved funding ceiling for the work assignment is reached.	The EPA COR will routinely meet with the Contractor's Project Manager to discuss the work progress, and the contract and individual task order expenditures. The EPA COR shall review the Contractor's Monthly Progress Reports and request the TOCOR's verification of expenditures and technical progress before authorizing invoice payments.	<p><b>Unsatisfactory</b> rating under the category of Cost Control in the CPARS when the Contractor does not meet the measurable performance standards during an applicable period of performance.</p> <p>A satisfactory rating will be reported in the CPARS Performance Evaluation System under the category of Cost Control if the contractor meets the measurable performance standards and accurately reports the costs in the progress reports according to the requirements in the "Reports of Work" attachment to the Contract.</p>
<p><b>Technical Effort:</b> The analyses or products developed by the Contractor shall be factual, defensible, and based on sound science and engineering. All data shall be collected from reputable sources; quality assurance measures shall be conducted in accordance with contract and Agency requirements, and any additional requirements outlined in individual task orders or technical directives. Any work</p>	All (100%) analyses conducted for EPA by the Contractor must be factual and based on sound science and engineering. All analyses and products (initial and final drafts) shall conform in format and content to requirements specified by the	EPA will review all analyses conducted and products prepared by the Contractor and will independently consider their merit. EPA may opt to peer review analyses to further validate their merit.	<b>Unsatisfactory</b> rating under the category of Quality of Product or Service in the CPARS when the Contractor does not meet the measurable performance standards during an applicable period of performance, even after review input and follow up discussion by Agency personnel.

<p>requiring the Contractor to provide options or recommendations shall include the rationale used in selecting the option/recommendation and all other options and recommendations considered.</p>	<p>TOCOR in written technical direction, and should meet the objectives stated in the task order. All initial draft documents shall be clearly written at a level appropriate to the targeted audience. All information shall be factual, technically sound, and accurate, with data sources identified.</p>		<p>A satisfactory rating will be reported in the CPARS Performance Evaluation System under the category of <b>Quality of Product or Service</b> if the contractor meets the measurable performance standards.</p>
<p><b>Quality Assurance/Quality Control (QA/QC):</b> The Contractor shall comply with the quality assurance requirements specified in <i>EPA Requirements for Quality Assurance Project Plans</i> (<a href="http://www.epa.gov/quality/qs-docs/r5-final.pdf">http://www.epa.gov/quality/qs-docs/r5-final.pdf</a>) and as required by the EPA TOCOR. The Contractor shall assign appropriately leveled and skilled technical and quality assurance personnel to develop a Quality Assurance Project Plan (QAPP) for all tasks requiring collection or use of environmental data.</p> <p>The QAPP shall be developed in consultation with the EPA TOCOR, and fully approved by the appropriate EPA personnel, before initiation of activities involving environmental data collection or use.</p> <p>Any change in the planned environmental data activities that become necessary during the course of the project shall be fully documented in approved revised versions of the QAPP prior to their implementation.</p>	<p>The Contractor shall notify the EPA TOCOR of any issues that impact project quality within 3 business days of occurrence.</p> <p>The Contractor shall notify the EPA TOCOR and COR within 5 business days of occurrence of any requests to collect or use environmental data without an EPA-approved QAPP.</p> <p>The Contractor shall document all QA/QC activities, including compliance with the quality objectives specified in the QAPP, in Monthly Progress Reports.</p>	<p>100% of active task orders under the contract will be reviewed by the EPA TOCOR monthly (via Monthly Progress Report) to assess contractor compliance with the approved QAPP, and to identify unreported issues related to project quality and requests to collect or use environmental data without an EPA-approved QAPP. The EPA TOCOR will report any issues to the EPA QAO and COR, who will bring the issue(s) to the Contractor's attention through the EPA CO for immediate resolution.</p>	<p><b>Unsatisfactory</b> rating under the category of Quality Assurance/Quality Control in the CPARS if more than three incidents occur during an applicable period of performance when the Contractor does not meet the measurable performance standards.</p> <p>A satisfactory rating will be reported in the CPARS Performance Evaluation System under the category of Quality Assurance/Quality Control if the contractor meets the measurable performance standards.</p>

<b>AMENDMENT OF SOLICITATION/MODIFICATION OF CONTRACT</b>		1. CONTRACT ID CODE		PAGE OF PAGES 1 2	
2. AMENDMENT/MODIFICATION NO. P00001		3. EFFECTIVE DATE See Block 16C		4. REQUISITION/PURCHASE REQ. NO.	
5. PROJECT NO. (If applicable)		6. ISSUED BY CAD		7. ADMINISTERED BY (If other than Item 6) CODE	
CAD US Environmental Protection Agency 26 West Martin Luther King Drive Mail Code: W136 Cincinnati OH 45268-0001		8. NAME AND ADDRESS OF CONTRACTOR (No., street, county, State and ZIP Code) TETRA TECH, INC. Attn: Andrew Parker 10306 EATON PL STE 340 FAIRFAX VA 220302201		9A. AMENDMENT OF SOLICITATION NO. 9B. DATED (SEE ITEM 11)	
CODE 198549560		FACILITY CODE		10A. MODIFICATION OF CONTRACT/ORDER NO. 68HERC20D0016 68HERC20F0382 10B. DATED (SEE ITEM 13) 08/20/2020	

**11. THIS ITEM ONLY APPLIES TO AMENDMENTS OF SOLICITATIONS**

☐ The above numbered solicitation is amended as set forth in Item 14. The hour and date specified for receipt of Offers ☐ is extended. ☐ is not extended.  
Offers must acknowledge receipt of this amendment prior to the hour and date specified in the solicitation or as amended, by one of the following methods: (a) By completing Items 8 and 15, and returning \_\_\_\_\_ copies of the amendment; (b) By acknowledging receipt of this amendment on each copy of the offer submitted; or (c) By separate letter or electronic communication which includes a reference to the solicitation and amendment numbers. FAILURE OF YOUR ACKNOWLEDGEMENT TO BE RECEIVED AT THE PLACE DESIGNATED FOR THE RECEIPT OF OFFERS PRIOR TO THE HOUR AND DATE SPECIFIED MAY RESULT IN REJECTION OF YOUR OFFER. If by virtue of this amendment you desire to change an offer already submitted, such change may be made by letter or electronic communication, provided each letter or electronic communication makes reference to the solicitation and this amendment, and is received prior to the opening hour and date specified.

12. ACCOUNTING AND APPROPRIATION DATA (If required)

See Schedule

**13. THIS ITEM ONLY APPLIES TO MODIFICATION OF CONTRACTS/ORDERS. IT MODIFIES THE CONTRACT/ORDER NO. AS DESCRIBED IN ITEM 14.**

CHECK ONE	A. THIS CHANGE ORDER IS ISSUED PURSUANT TO: (Specify authority) THE CHANGES SET FORTH IN ITEM 14 ARE MADE IN THE CONTRACT ORDER NO. IN ITEM 10A.
X	B. THE ABOVE NUMBERED CONTRACT/ORDER IS MODIFIED TO REFLECT THE ADMINISTRATIVE CHANGES (such as changes in paying office, appropriation data, etc.) SET FORTH IN ITEM 14, PURSUANT TO THE AUTHORITY OF FAR 43.103(b).
	C. THIS SUPPLEMENTAL AGREEMENT IS ENTERED INTO PURSUANT TO AUTHORITY OF:
	D. OTHER (Specify type of modification and authority)

**E. IMPORTANT:** Contractor ☒ is not ☐ is required to sign this document and return \_\_\_\_\_ copies to the issuing office.

14. DESCRIPTION OF AMENDMENT/MODIFICATION (Organized by UCF section headings, including solicitation/contract subject matter where feasible.)

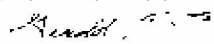
DUNS Number: 198549560

TOCOR: Tina Laidlaw Max Expire Date: 08/25/2021 Invoice Approver: Tina Laidlaw Alt Invoice App: Jason Gildea

The purpose of this modification is to incorporate the attached EPA blanket administrative modification signed by Raoul Scott on July 30, 2020. All other terms and conditions remain unchanged.

Continued ...

Except as provided herein, all terms and conditions of the document referenced in Item 9 A or 10A, as heretofore changed, remains unchanged and in full force and effect.

15A. NAME AND TITLE OF SIGNER (Type or print)		16A. NAME AND TITLE OF CONTRACTING OFFICER (Type or print) Gerold D. Young	
15B. CONTRACTOR/OFFEROR  (Signature of person authorized to sign)	15C. DATE SIGNED	16B. UNITED STATES OF AMERICA  (Signature of Contracting Officer)	16C. DATE SIGNED 10/08/2020

Previous edition unusable

<b>CONTINUATION SHEET</b>	REFERENCE NO. OF DOCUMENT BEING CONTINUED	PAGE	OF
	68HERC20D0016/68HERC20F0382/P00001	2	2

NAME OF OFFEROR OR CONTRACTOR  
TETRA TECH, INC.

ITEM NO. (A)	SUPPLIES/SERVICES (B)	QUANTITY (C)	UNIT (D)	UNIT PRICE (E)	AMOUNT (F)
	Payment: RTP Finance Center US Environmental Protection Agency RTP-Finance Center (AA216-01) 109 TW Alexander Drive www2.epa.gov/financial/contracts Durham NC 27711 Period of Performance: 08/26/2020 to 08/25/2021				

<b>AMENDMENT OF SOLICITATION/MODIFICATION OF CONTRACT</b>				1. CONTRACT ID CODE		PAGE OF PAGES	
2. AMENDMENT/MODIFICATION NUMBER		3. EFFECTIVE DATE 08/13/2020		4. REQUISITION/PURCHASE REQUISITION NUMBER		5. PROJECT NUMBER (If applicable)	
6. ISSUED BY Raoul D. Scott, Director OMS/ARM/OAS/Policy, Training and Oversight Division US Environmental Protection Agency, Mail Code 3802R 1200 Pennsylvania Avenue, NW Washington, DC 20004		CODE		7. ADMINISTERED BY (If other than Item 6)		CODE	
8. NAME AND ADDRESS OF CONTRACTOR (Number, street, county, State and ZIP Code)  To All EPA Contractors				<input checked="" type="checkbox"/> (X)		9A. AMENDMENT OF SOLICITATION NUMBER	
				<input type="checkbox"/>		9B. DATED (SEE ITEM 11)	
				<input checked="" type="checkbox"/> (X)		10A. MODIFICATION OF CONTRACT/ORDER NUMBER To all EPA Contracts and Orders	
				<input type="checkbox"/>		10B. DATED (SEE ITEM 13)	
CODE		FACILITY CODE					

**11. THIS ITEM ONLY APPLIES TO AMENDMENTS OF SOLICITATIONS**

☐ The above numbered solicitation is amended as set forth in Item 14. The hour and date specified for receipt of Offers ☐ is extended. ☐ is not extended.

Offers must acknowledge receipt of this amendment prior to the hour and date specified in the solicitation or as amended, by one of the following methods:  
 (a) By completing items 8 and 15, and returning \_\_\_\_\_ copies of the amendment; (b) By acknowledging receipt of this amendment on each copy of the offer submitted;  
 or (c) By separate letter or electronic communication which includes a reference to the solicitation and amendment numbers. FAILURE OF YOUR ACKNOWLEDGMENT TO BE RECEIVED AT THE PLACE DESIGNATED FOR THE RECEIPT OF OFFERS PRIOR TO THE HOUR AND DATE SPECIFIED MAY RESULT IN REJECTION OF YOUR OFFER. If by virtue of this amendment you desire to change an offer already submitted, such change may be made by letter or electronic communication, provided each letter or electronic communication makes reference to the solicitation and this amendment, and is received prior to the opening hour and date specified.

12. ACCOUNTING AND APPROPRIATION DATA (If required)

**13. THIS ITEM APPLIES ONLY TO MODIFICATIONS OF CONTRACTS/ORDERS.  
IT MODIFIES THE CONTRACT/ORDER NUMBER AS DESCRIBED IN ITEM 14.**

CHECK ONE	A. THIS CHANGE ORDER IS ISSUED PURSUANT TO: (Specify authority) THE CHANGES SET FORTH IN ITEM 14 ARE MADE IN THE CONTRACT ORDER NUMBER IN ITEM 10A.
<input type="checkbox"/>	
<input checked="" type="checkbox"/>	B. THE ABOVE NUMBERED CONTRACT/ORDER IS MODIFIED TO REFLECT THE ADMINISTRATIVE CHANGES (such as changes in paying office, appropriation data, etc.) SET FORTH IN ITEM 14, PURSUANT TO THE AUTHORITY OF FAR 43.103(b).
<input type="checkbox"/>	C. THIS SUPPLEMENTAL AGREEMENT IS ENTERED INTO PURSUANT TO AUTHORITY OF:
<input type="checkbox"/>	D. OTHER (Specify type of modification and authority)

**E. IMPORTANT:** Contractor ☒ is not ☐ is required to sign this document and return \_\_\_\_\_ copies to the issuing office.

14. DESCRIPTION OF AMENDMENT/MODIFICATION (Organized by UCF section headings, including solicitation/contract subject matter where feasible.)

This contract/order is being modified in accordance with the applicability instructions in interim FAR Case 2019-009, and FAR 4.2105, requiring contracting officers to include FAR clause 52.204-25, Prohibition on Contracting for Certain Telecommunications and Video Surveillance Services or Equipment.

See attached for the full text version of FAR 52.204-25. Contractor Acknowledgment of receipt required.

Except as provided herein, all terms and conditions of the document referenced in Item 9A or 10A, as heretofore changed, remains unchanged and in full force and effect.

15A. NAME AND TITLE OF SIGNER (Type or print)		16A. NAME AND TITLE OF CONTRACTING OFFICER (Type or print) Raoul D. Scott, Director Policy, Training and Oversight Division	
15B. CONTRACTOR/OFFEROR	15C. DATE SIGNED	16B. UNITED STATES OF AMERICA  RAOUL SCOTT Digitally signed by RAOUL SCOTT Date: 2020.07.30 11:40:17 -04'00'	16C. DATE SIGNED
(Signature of person authorized to sign)		(Signature of Contracting Officer)	

Previous edition unusable

## **52.204-25 Prohibition on Contracting for Certain Telecommunications and Video Surveillance Services or Equipment.**

As prescribed in 4.2105(b) and in the applicability instructions in interim FAR Case 2019-009, insert the following clause:

### **Prohibition on Contracting for Certain Telecommunications and Video Surveillance Services or Equipment (Aug 2020)**

(a) Definitions. As used in this clause—

*Backhaul* means intermediate links between the core network, or backbone network, and the small subnetworks at the edge of the network (e.g., connecting cell phones/towers to the core telephone network). Backhaul can be wireless (e.g., microwave) or wired (e.g., fiber optic, coaxial cable, Ethernet).

*Covered foreign country* means The People's Republic of China.

*Covered telecommunications equipment or services* means—

(1) Telecommunications equipment produced by Huawei Technologies Company or ZTE Corporation (or any subsidiary or affiliate of such entities);

(2) For the purpose of public safety, security of Government facilities, physical security surveillance of critical infrastructure, and other national security purposes, video surveillance and telecommunications equipment produced by Hytera Communications Corporation, Hangzhou Hikvision Digital Technology Company, or Dahua Technology Company (or any subsidiary or affiliate of such entities);

(3) Telecommunications or video surveillance services provided by such entities or using such equipment; or

(4) Telecommunications or video surveillance equipment or services produced or provided by an entity that the Secretary of Defense, in consultation with the Director of National Intelligence or the Director of the Federal Bureau of Investigation, reasonably believes to be an entity owned or controlled by, or otherwise connected to, the government of a covered foreign country.

*Critical technology* means—

(1) Defense articles or defense services included on the United States Munitions List set forth in the International Traffic in Arms Regulations under subchapter M of chapter I of title 22, Code of Federal Regulations;

(2) Items included on the Commerce Control List set forth in Supplement No. 1 to part 774 of the Export Administration Regulations under subchapter C of chapter VII of title 15, Code of Federal Regulations, and controlled-

(i) Pursuant to multilateral regimes, including for reasons relating to national security, chemical and biological weapons proliferation, nuclear nonproliferation, or missile technology; or

(ii) For reasons relating to regional stability or surreptitious listening;

(3) Specially designed and prepared nuclear equipment, parts and components, materials, software, and technology covered by part 810 of title 10, Code of Federal Regulations (relating to assistance to foreign atomic energy activities);

(4) Nuclear facilities, equipment, and material covered by part 110 of title 10, Code of Federal Regulations (relating to export and import of nuclear equipment and material);

(5) Select agents and toxins covered by part 331 of title 7, Code of Federal Regulations, part 121 of title 9 of such Code, or part 73 of title 42 of such Code; or

(6) Emerging and foundational technologies controlled pursuant to section 1758 of the Export Control Reform Act of 2018 (50 U.S.C. 4817).

*Interconnection arrangements* means arrangements governing the physical connection of two or more networks to allow the use of another's network to hand off traffic where it is ultimately delivered (e.g., connection of a customer of telephone provider A to a customer of telephone company B) or sharing data and other information resources.

*Reasonable inquiry* means an inquiry designed to uncover any information in the entity's possession about the identity of the producer or provider of covered telecommunications equipment or services used by the entity that excludes the need to include an internal or third-party audit.

*Roaming* means cellular communications services (e.g., voice, video, data) received from a visited network when unable to connect to the facilities of the home network either because signal coverage is too weak or because traffic is too high.

*Substantial or essential component* means any component necessary for the proper function or performance of a piece of equipment, system, or service.

(b) Prohibition. (1) Section 889(a)(1)(A) of the John S. McCain National Defense Authorization Act for Fiscal Year 2019 (Pub. L. 115-232) prohibits the head of an executive agency on or after August 13, 2019, from procuring or obtaining, or extending or renewing a contract to procure or obtain, any equipment, system, or service that uses covered telecommunications equipment or services as a substantial or essential component of any system, or as critical technology as part of any system. The Contractor is prohibited from providing to the Government any equipment, system, or service that uses covered telecommunications equipment or services as a substantial or essential component of any system, or as critical technology as part of any system, unless an exception at paragraph (c) of this clause applies or the covered telecommunication equipment or services are covered by a waiver described in FAR 4.2104.

(2) Section 889(a)(1)(B) of the John S. McCain National Defense Authorization Act for Fiscal Year 2019 (Pub. L. 115-232) prohibits the head of an executive agency on or after August 13, 2020, from entering into a contract, or extending or renewing a contract, with an entity that uses any equipment, system, or service that uses covered telecommunications equipment or services as a substantial or essential component of any system, or as critical technology as part of any system, unless an exception at paragraph (c) of this clause applies or the covered telecommunication equipment or services are covered by a waiver described in FAR 4.2104. This prohibition applies to the use of covered telecommunications equipment or services, regardless of whether that use is in performance of work under a Federal contract.

(c) *Exceptions.* This clause does not prohibit contractors from providing—

(1) A service that connects to the facilities of a third-party, such as backhaul, roaming, or interconnection arrangements; or

(2) Telecommunications equipment that cannot route or redirect user data traffic or permit visibility into any user data or packets that such equipment transmits or otherwise handles.

(d) Reporting requirement.

(1) In the event the Contractor identifies covered telecommunications equipment or services used as a substantial or essential component of any system, or as critical technology as part of any system, during contract performance, or the Contractor is notified of such by a subcontractor at any tier or by any other source, the Contractor shall report the information in paragraph (d)(2) of this clause to the Contracting Officer, unless elsewhere in this contract are established procedures for reporting the information; in the case of the Department of Defense, the Contractor shall report to the website at <https://dibnet.dod.mil>. For indefinite delivery contracts, the Contractor shall report to the Contracting Officer for the indefinite delivery contract and the Contracting Officer(s) for any affected order or, in the case of the Department of Defense, identify both the indefinite delivery contract and any affected orders in the report provided at <https://dibnet.dod.mil>.

(2) The Contractor shall report the following information pursuant to paragraph (d)(1) of this clause

(i) Within one business day from the date of such identification or notification: the contract number; the order number(s), if applicable; supplier name; supplier unique entity identifier (if known); supplier Commercial and Government Entity (CAGE) code (if known); brand; model number (original equipment manufacturer number, manufacturer part number, or wholesaler number); item description; and any readily available information about mitigation actions undertaken or recommended.

(ii) Within 10 business days of submitting the information in paragraph (d)(2)(i) of this clause: any further available information about mitigation actions undertaken or recommended. In addition, the Contractor shall describe the efforts it undertook to prevent use or submission of covered telecommunications equipment or services, and any additional efforts that will be incorporated to prevent future use or submission of covered telecommunications equipment or services.

(e) *Subcontracts*. The Contractor shall insert the substance of this clause, including this paragraph (e) and excluding paragraph (b)(2), in all subcontracts and other contractual instruments, including subcontracts for the acquisition of commercial items.

(End of clause)